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Appl. No. 10/690,818

October 17, 2005

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AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Canceled)

2. (Canceled)

3. (Canceled)

4. (Canceled)

5. (Canceled)

6. (Previously amended) A method of emulating a handheld video game platform comprising:

loading and executing an emulator program on a target platform different from said video game platform;

parsing and processing with said emulator program, an executable image capable of being executed on said video game platform; and

generating an real time interactive video game presentation on said target platform in response to said processed image,

wherein the target platform comprises a display unit having a predetermined display area, and said emulated program displays the visual part of said audio visual presentation on only a subset of said display unit display area.

7. (Canceled)

8. (Canceled) .

9. (Canceled) .

10. (Canceled)

11. (Canceled) .

12. (Canceled) .

13. (Canceled).

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14. (Previously amended) An emulator that emulates in software, at least a portion of handheld video game platform hardware, said emulator comprising:

a target platform different from said handheld video game platform, said target platform including a processor that loads and executes emulation software, parses and processes an image capable of being executed on said handheld video game platform, and generates an audio-visual real time interactive presentation in response to said image,

wherein the target platform comprises a seat-back display unit having a predetermined display area, and said target platform under control of said emulation software displays the visual part of said audio visual presentation on only a subset of said seat-back display unit display area.

15. (Canceled)

16. (Canceled)

17 (New). The method of claim 6 wherein said display unit comprises a liquid crystal display.

18 (New). The method of claim 6 further including executing a virtual liquid crystal display controller state machine to maintain real time synchronization with events as they would occur on said video game platform.

19 (New). The method of claim 6 further including using hardware-assisted BLIT memory transfer operations to efficiently transfer graphics information.

20 (New). The method of claim 6 further including using a pre-computed translation table that translates native platform graphics character formats.

21 (New). The method of claim 6 further including emulating registers and hardware-based memory structures within the video game machine in random access memory under software control.

22 (New). The method of claim 6 further including using a jump table to efficiently parse incoming binary instruction formats.

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23 (New). The method of claim 6 further including using a page table to control memory access by remapping memory access instructions into different memory locations and/or function calls.

24 (New). The method of claim 6 further including providing a read only memory protection function to eliminate overwriting of read only memory during emulated operations.

25 (New). The method of claim 6 further including modeling said video game platform using a stage machine defining search, transfer, horizontal blank and vertical blank states.

26 (New). The method of claim 25 further including providing a cycle timer to determine when a modeled state has expired and transition to a new state is desired.

27 (New). The method of claim 6 further including selectively skipping frames while maintaining execution of instructions to maintain state information while minimizing game play slowdowns.

28 (New). The method of claim 6 further including providing a no-operation look-ahead feature to avoid wasting processing time in no-operation loops.

29 (New). The method of claim 6 further including modeling said video game platform native instruction registers as a union of byte, word and long register formats.

30 (New). The method of claim 6 further including modeling video game platform native instruction CPU flags to allow efficient updating after operations are performed by the target platform.

31 (New). The method of claim 6 further including mapping the video game platform emulated program counter into a target platform microprocessor general purpose register.

32 (New). The method of claim 6 further including providing an adaptable input controller emulator to provide user inputs from a variety of different user input devices.

33 (New). The method of claim 6 further including using screen memory buffers larger than display unit display area to increase paging efficiency by eliminating clipping

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calculations and using hardware Bitblit to transfer a subset of said memory buffer to display video memory.

34 (New). The method of claim 6 wherein said target platform comprise an airline seat back controller.